

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for depositing, on a substrate, a coating ~~based on comprising a semiconductor material comprising a materials based on metal oxide oxides, which are wherein the metal oxide initiates capable, under the effect of radiation of a~~ suitable wavelength, ~~of initiating one or more~~ radical reactions causing the oxidation of organic substances ~~and thereby said coating has so as to confer~~ photocatalytic properties on ~~said coating~~, the process comprising:

depositing the coating having with photocatalytic properties by chemical vapor deposition, wherein the reaction and the deposition are carried out at an atmospheric pressure and the deposition is carried out at a temperature below 300°C under an atmosphere comprising a gas mixture that comprises at least one of an organometallic precursor and a metal halide of said metal oxide, the deposition being enhanced by a plasma source.

Claim 2 (Currently Amended): The process according to as claimed in claim 1, wherein at least one carrier gas or a mixture of carrier gases is selected from the group consisting of air, nitrogen, helium, and argon,

and the carrier gas or the mixture of carrier gases is injected parallel to the gas mixture containing comprising the precursor.

Claim 3 (Currently Amended): The process according to as claimed in claim 1, wherein the gas mixture comprises an oxidizing agent or a mixture of oxidizing agents is incorporated into the gas mixture.

Claim 4 (Currently Amended): The process according to as claimed in claim 1, wherein the gas mixture comprises a reducing agent or a mixture of reducing agents ~~is incorporated into the gas mixture.~~

Claims 5-6 (Canceled).

Claim 7 (Currently Amended): The process according to as claimed in claim 1, wherein at least one sublayer is deposited, prior to the deposition of the coating having with photocatalytic properties, thereby making it possible to impart another functionality to said coating having with photocatalytic properties and/or to reinforce said properties of said coating.

Claim 8 (Currently Amended): The process according to as claimed in claim 1, ~~which incorporates into wherein~~ the gas mixture comprises comprising at least one of the organometallic precursor and and/or a metal halide of said metal oxide that is at least one other type of mineral material.

Claim 9 (Currently Amended): The process according to as claimed in claim 1, wherein the coating having with photocatalytic properties is deposited on the substrate ~~within the an~~ actual plasma discharge.

Claim 10 (Currently Amended): The process according to as claimed in claim 1, wherein the coating having with photocatalytic properties is deposited on the substrate outside [[the]]a plasma discharge.

Claim 11 (Withdrawn, Currently Amended): A substrate comprising ~~based on~~ glass, ceramic, glass-ceramic or plastic, ~~provided on~~ wherein at least part of at least one face of its faces of the substrate comprising with a coating having ~~with~~ photocatalytic properties, wherein the substrate comprises comprising:

at least partially crystallized titanium oxide, obtained by implementing the process as ~~claimed in~~ according to claim 1, wherein the crystallized titanium oxide is in anatase form, in rutile form, in brookite form, or in the form of a mixture of anatase, rutile and brookite.

Claim 12 (Withdrawn, Currently Amended): The substrate according to ~~as claimed~~ in claim 11, wherein the crystallized titanium oxide is in the form of crystallites having ~~with~~ a mean size of between 0.5 and 60 nm.

Claim 13 (Withdrawn, Currently Amended): The substrate according to ~~as claimed~~ in claim 11, wherein the coating comprises ~~also includes~~ a mineral material.

Claim 14 (Withdrawn, Currently Amended): The substrate according to ~~as claimed~~ in claim 11, wherein the coating comprises ~~an additive~~ ~~includes additives~~ capable of extending the photocatalytic properties ~~effect~~ due to titanium oxide.

Claim 15 (Withdrawn, Currently Amended): The substrate according to ~~as claimed~~ in claim 14, wherein ~~the~~ a crystal lattice of the titanium oxide is doped.

Claim 16 (Withdrawn, Currently Amended): The substrate according to ~~as claimed~~ in claim 11, wherein ~~the~~ a thickness of the coating is between 5 nm and 1 micron.

Claim 17 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein ~~the a~~ photocatalytic activity of the coating is at least  $5 \times 10^{-3} \text{ cm}^{-1} \text{ min}^{-1}$  measured by means of ~~the a~~ TAS test.

Claim 18 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein ~~the a~~ rms roughness of the photocatalytic coating is between 2 and 20 nm.

Claim 19 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein ~~the a~~ light reflection of the photocatalytic coating is less than 30%, with a neutral color.

Claim 20 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein ~~the an~~ absorption of the photocatalytic coating is less than 10%,.

Claim 21 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein at least one thin film having an antistatic, thermal or optical function, or forming a barrier to ~~the~~ migration of alkali metals coming from the substrate, is placed beneath the coating having with photocatalytic properties.

Claim 22 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 21, wherein the thin film having an antistatic function, possibly with and optionally at least one of controlled polarization, and/or having a thermal function and/or and an optical function is based on comprises a conductive material of the metal type or of the doped metal oxide type.

Claim 23 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 21, wherein the thin film having an optical function comprises is ~~based on~~ an oxide or a mixture of oxides, ~~the~~ a refractive index of which is intermediate between ~~that~~ the refractive index of the coating and ~~that~~ the refractive index of the substrate, especially ~~that~~ (or those) chosen from the following oxides: wherein the oxide comprises  $\text{Al}_2\text{O}_3$ ,  $\text{SnO}_2$ , and  $\text{In}_2\text{O}_3$ , or ~~based on~~ silicon oxycarbide, or silicon oxynitride, or mixed oxides comprising ~~based on~~ a mixture of a material of high refractive index with a material of low refractive index.

Claim 24 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 21, wherein the thin film having an alkali-metal barrier function comprises is ~~based on~~ a silicon oxide, nitride, oxynitride or oxycarbide,  $\text{F:Al}_2\text{O}_3$ , aluminum nitride,  $\text{SnO}_2$  or silicon nitride.

Claim 25 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein the substrate is transparent, flat, or curved.

Claim 26 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein the substrate is a glass substrate.

Claim 27 (Withdrawn, Currently Amended): The substrate according to as claimed in claim 11, wherein the substrate is a substrate comprising ~~based on~~ a polymer, PMMA, polycarbonate, or PEN.

Claim 28 (Withdrawn, Currently Amended): An antisoiling and/or antifogging, monolithic, multiple or laminated glazing assembly[[:]], wherein the assembly comprises the substrate according to Claim 11, comprising:

~~a substrate as claimed in claim 11,~~  
~~for the manufacture of glazing having properties of self cleaning, antifogging and/or antisoiling, as regards organic and/or mineral soiling, for building windows of the double-glazing type, vehicle windows of the windshield, rear window or side window type for automobiles, trains and aircraft, or utilitarian glazing, including glass for an aquarium, for shop windows, for a greenhouse, for interior furnishing, for urban furniture, or mirrors, television screens, or glazing with electrically controlled variable absorption, or photovoltaic cells.~~

Claim 29 (Currently Amended): The process according to of claim 1, wherein the metal oxide is titanium oxide.

Claim 30 (Canceled).

Claim 31 (Withdrawn, Currently Amended): A method for manufacturing a laminated assembly, ~~the method comprising[:]~~ incorporating a substrate according to as claimed in claim 11.